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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,942	01/03/2002	Alain M. Sagnard	61301A	7761

109 7590 04/18/2005

THE DOW CHEMICAL COMPANY  
INTELLECTUAL PROPERTY SECTION  
P. O. BOX 1967  
MIDLAND, MI 48641-1967

EXAMINER

RHEE, JANE J

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 04/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/037,942

Applicant(s)

SAGNARD ET AL

Examiner

Jane Rhee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12, 15-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 15-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Rejections Withdrawn***

1. The 35 U.S.C. 103(a) rejection of claims 1-12,15,21,22 over Grinshpun et al. has been withdrawn due to applicant's arguments in paper 2/4/2005.
2. The 35 U.S.C. 103(a) rejection of claims 16-20 over Grinshpun et al. in view of Malone has been withdrawn due to applicant's arguments in paper 2/4/2005.

### ***New Rejections***

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4,6-12,15,21,22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friedl et al. (5993932).

As to claim 1, Friedl et al. discloses a building panel comprising at least two panel domains (figure 2 numbers 12,11), wherein each panel domain has an essentially homogeneous strength and an average compressive strengths (col. 4 lines 1-8) wherein the panel has at least two panel domains having different average compressive strengths (col. 4 lines 1-8) is essentially free of a combination of hollow and solid foam strands, a uniform panel thickness (figure 2), fits fully within a cavity defined by cavity walls (figure 3 number 20), and when in the cavity, the building panel has a

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compressive recovery that supplies sufficient pressure against the cavity walls to frictionally retain the building panel within the cavity (col. 5 lines 1-4) wherein the panel has an edge containing a panel domain extending from a primary face to an opposing face (figure 2). As to claim 3, Friedl et al. discloses wherein at least one panel domain is a conformable panel domain that when compressed reduces at least one dimension of the panel thereby allowing insertion of the panel into the cavity, wherein the panel has a compressive recovery that causes frictional retention of the panel within the cavity (col. 5 lines 1-4). As to claim 4, Friedl et al. discloses at least one panel domain that is a conformable panel domain that allows the panel to reversibly bend from a planar to a nonplanar configuration (col. 4 line 5-8, foam is resilient therefore can bend). As to claim 6, Friedl et al. discloses that the panel has alternating conformable and rigid panel domains (figure 2 number 11,12). As to claim 7, Friedl et al. discloses that the panel has a perimeter and the perimeter comprises at least one conformable panel domain (figure 2 number 13). As to claim 8, Friedl et al. discloses a conformable panel along at least one edge (figure 2 number 12). As to claim 9, Friedl et al. discloses that the panel domains are bands (figure 6 numbers 63,60). As to claim 10, the panel has at least one edge that comprises a tongue profile (figure 1 number 13). As to claims 11 and 12, Friedl et al. discloses that each panel domain comprises a polymeric foam (col. 3 lines 11). As to claim 21, Friedl et al. discloses that at least one edge of the panel is a conformable domain (figure 2 numbers 12). As to claim 22, Friedl et al. discloses that the panel domains extend through the thickness of the panel (figure 2 number 11,12).

Friedl et al. fail to disclose a cavity defined by cavity walls that has a compressive recovery that supplies sufficient pressure against the cavity walls to frictionally retain the building panel within the cavity, the pressure being 100 Newtons per square meter or more and 200,000 Newton per square meter or less. Friedl et al. fail to disclose that at least two domains differ in average compressive strength by at least 5%.

Friedl et al. teaches that the foam material of the panels expand such that they are forced against the sidewalls of the extruded profile defining the cavity (col. 5 lines 1-5), therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide Friedl et al. with a compressive recovery that supplies sufficient pressure against the cavity walls to frictionally retain the building panel within the cavity, the pressure being 100 Newtons per square meter or more and 200,000 Newton per square meter or less in absence of unexpected results.

Friedl et al. teaches that the foam material comprises a springy, resilient layer and two heavy layers wherein the heavy layers consist of a flocculated foam polyurethane compound that have a very dense structure so that they can hardly be compressed, and the springy foam material consist of soft foam polyurethane has an open cell structure which can be compressed in a high degree (col. 4 lines 4-8), therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide at least two domains differ in average compressive strength by at least 5%.

4. Claim is 5 rejected under 35 U.S.C. 103(a) as being unpatentable over Friedl et al. in view of Ducharme (5062244).

Friedl et al. discloses that the panel has a slit penetrating to a depth less than the panel thickness traverses the primary faces or the face opposing the primary face.

Ducharme teaches that the panel has a slit penetrating to a depth less than the panel thickness traverses the primary faces or the face opposing the primary face (figure 1 number 28 or 29) for the purpose of increasing the insulation value of the panel (col. 3 lines 18-19).

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide Friedl et al. with a slit penetrating to a depth less than the panel thickness traverses the primary faces or the face opposing the primary face in order to increase the insulation value of the panel (col. 3 lines 18-19).

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Friedl et al. in view of Grinshpun et al. (6226943).

Friedl et al. discloses the panel described above. Friedl et al. fail to disclose that at least one panel domain has an open cell content of 5 percent or 50 percent or more according to American Society for Testing and Materials method D2856A . Grinshpun et al. teaches disclose that at least one panel domain has an open cell content of 5 percent or 50 percent or more according to American Society for Testing and Materials method D2856A (col. 5 lines 42-48) for the purpose of obtaining desired insulating properties of the foam (col. 5 lines 54-55).

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide Friedl et al. with at least one panel domain has an open cell content of 5 percent or 50 percent or more according to American Society for Testing and Materials method D2856A in order to obtain desired insulating properties of the foam (col. 5 lines 54-55).

6. Claims 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friedl et al. in view of Park (WO0015697).

Friedl et al. discloses the panel described above. Friedl et al. fail to disclose that at least one panel domain comprises coalesced polymeric foam strands and wherein the foam strands comprise polypropylene. Friedl et al. fail to disclose that at least one panel domain comprises coalesced polymeric foam strands having interstrand spaces. Friedl et al. fail to disclose foam's average cell diameter within the range of 0.01 to 10mm.

Park teaches coalesced polymeric foam strands that comprise polypropylene (page 4 line 12) and have interstrand spaces (page 9 line 30), an open cell content of 84 percent with diameter of .4mm (page 21 lines 26-29) for the purpose providing sound deadening properties satisfactory for demanding applications which have mechanical strength, which are economical to manufacture and which are hydrolytically stable.

Therefore, it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to provide Friedl et al. with coalesced polymeric foam strands that comprise polypropylene and have interstrand spaces, an open cell

content of 84 percent with diameter of .4mm in order to provide sound deadening properties satisfactory for demanding applications which have mechanical strength, which are economical to manufacture and which are hydrolytically stable (page 2 lines 19-21) as taught by Park.

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1-12,15-22 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jane Rhee whose telephone number is 571-272-1499. The examiner can normally be reached on M-F 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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A handwritten signature in cursive script, appearing to read "Jane Rhee".

Jane Rhee  
April 11, 2005

A handwritten signature in cursive script, appearing to read "Patrick Joseph Ryan".

**PATRICK JOSEPH RYAN**  
**SUPERVISORY PATENT EXAMINER**